

CLAIMS:

1. A communications device including a group of wireless communications modules integrated therein, each of which wireless communications modules is configurable as a master unit in a shared resources network and comprises its own native clock for clocking said wireless communications module independently of the native clock of any other said module, each said wireless communications module further comprising its own baseband controller and a transceiver and being adapted for wireless communication with one or more user terminals by transmission of packets in timeslots defined by said native clock of said radio module, each said wireless communications module further comprising at least one external input through which in use is supplied a signal which is used to substantially synchronize said modules in such a manner that packets transmissions from two said wireless communications modules integrated into the same said communications device are synchronized.
2. A device according to claim 1, wherein said wireless communications modules are synchronized by synchronization of their native clocks.
3. A device according to claim 1 or claim 2, wherein said synchronization is achieved by each said baseband controller writing substantially simultaneously the same pre-assigned value into a native clock register of its respective said wireless communications module.
4. A device according to claim 3, wherein said baseband controller is prompted through a said external input to write said pre-assigned value, preferably on initialization of said device.
5. A device according to any preceding claim, wherein a said external input comprises an interrupt line operative to synchronize said wireless communications modules, for example by application of an initialization, reset or interrupt signal common to each said wireless communications module.

6. A device according to any preceding claim, wherein said wireless communications modules are synchronized by use therebetween of a common oscillator, supplied to each said wireless communications module through for example a said external input.

7. A device according to any preceding claim, wherein said synchronization substantially aligns said timeslots between a plurality of said wireless communications modules and preferably aligns boundaries or borders of said timeslots.

8. A device according to any preceding claim, wherein said synchronization ensures that each said packet transmission is either successfully transmitted or substantially completely destroyed by a further packet transmission from another said wireless communications module of said device.

9. A device according to any preceding claim, further comprising a host processor adapted to control access from said device to said shared resources network.

10. A device according to claim 9, wherein a plurality of said wireless communications modules are connected to said shared resources network through said host processor.

11. A device according to claim 9 or claim 10, wherein one or more of said wireless communications modules are connected to said host processor via a Host Controller Interface (HCI).

12. A device according to any preceding claim, wherein at least two said wireless communications modules are devoted to different communications tasks.

13. A device according to claim 12, wherein one said wireless communications module is devoted solely to the capture of user terminals which are in range of said device but which are not currently connected thereto.

14. A device according to any preceding claim, said device comprising an access point of a wireless area network and said wireless area network preferably comprising a frequency hopping communications network operating, for example, in accordance with the Bluetooth protocol.

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15. A method of operating a radio communications device which includes a group of wireless communications modules integrated therein, the method including:

a) configuring each said wireless communications module as a master unit of a shared resources network;

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b) clocking each said wireless communications module independently of any other said wireless communications module in said group by using a respective native clock for each said wireless communications module;

c) engaging in wireless communication with one or more user terminals by one or more of said wireless communications modules transmitting packets in timeslots

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defined by said native clocks; and

d) substantially aligning said timeslots between said wireless communications modules.

16. The method according to claim 15, whereby said method ensures that there is no or reduced partial collision between packet transmissions of two said radio modules integrated into the same said communications device.

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17. A communications network comprising at least one a communications device in accordance with any one of claims 1 to 14 or operative in accordance with the method of claim 15, said device preferably being configured as an access point of said communications network.

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